

IN THE CLAIMS:

1-52. (Canceled)

53. (Currently Amended) A liquid crystal element, comprising:

a multitude of pixel electrodes;

a liquid crystal to which an electric field is applied by said pixel electrodes, said liquid crystal has such a structure that a four-sided minute pixel electrode is arrayed in a lattice in X, Y directions crossing each other at a right angle on a display plane and said non-conductive portion;

an inclined structure, wherein an electric field direction of the liquid crystal between at least one pair of adjacent pixels is inclined against an electrode plane; and

an opposite electrode parallel with said pixel electrodes, wherein the liquid crystal is held between said pixel electrodes and said opposite electrode, the inclined structure has a non-conductive portion provided in a part of the opposite electrode that is opposite to a gap between at least one pair of adjacent pixel electrodes; and

a side of the pixel electrode is opposite to the opposite electrode, and the other side of the pixel electrode is opposite to the non-conductive portion, ~~A liquid crystal element according to claim 52, wherein,~~ ~~comprises~~ in view of a Z direction at a right angle with X, Y directions when a pixel of i-th position in X direction and j-th position in Y direction from an edge point or a

standard point is defined as $p(i, j)$, said non-conductive portion, comprises:

a first nonconductive portion, with a rectangular shape having a longer side in Y direction and a larger width in X direction than a distance between a pixel $p(4m, 4n+1)$ and a pixel $p(4m+1, 4n+1)$, which includes an opposite electrode corresponding to each of at least a part of a gap between a pixel $p(4m, 4n)$ [m, n : an integer] and a pixel $p(4m+1, 4n)$ as well as at least a part of a gap between a pixel $p(4m, 4n+1)$ and a pixel $p(4m+1, 4n+1)$;

a second nonconductive portion, with a rectangular shape having a longer side in X direction and a larger width in Y direction than a distance between a pixel $p(4m+1, 4n+2)$ and a pixel $p(4m+1, 4n+3)$, which includes an opposite electrode corresponding to each of at least a part of a gap between a pixel $p(4m, 4n+2)$ and a pixel $p(4m, 4n+3)$ as well as at least a part of a gap between a pixel $p(4m+1, 4n+2)$ and a pixel $p(4m+1, 4n+3)$;

a third nonconductive portion, with a rectangular shape having a longer side in X direction and a larger width in Y direction than a distance between a pixel $p(4m+2, 4n)$ and a pixel $p(4m+2, 4n+1)$, which includes an opposite electrode corresponding to each of at least a part of a gap between a pixel $p(4m+2, 4n)$ and a pixel $p(4m+2, 4n+1)$ as well as at least a part of a gap between a pixel $p(4m+3, 4n)$ and a pixel $p(4m+3, 4n+1)$; and

a fourth nonconductive portion, with a rectangular shape having a longer side in Y direction and a larger width in X direction than a distance between a pixel $p(4m+2, 4n+3)$ and a pixel $p(4m+3, 4n+3)$, which includes an opposite electrode corresponding to each of at least a part of a gap between a pixel $p(4m+2, 4n+2)$ and a pixel $p(4m+3, 4n+2)$ as well as at least a part of a gap between a pixel $p(4m+2, 4n+3)$ and a pixel $p(4m+3, 4n+3)$.

54. (Currently Amended) A liquid crystal element, comprising:

a multitude of pixel electrodes;

a liquid crystal to which an electric field is applied by said pixel electrodes, said liquid crystal element has a structure such that a four-sided minute pixel electrode is arrayed in a lattice in X, Y directions crossing each other at a right angle on a display plane and said non-conductive portion;

an inclined structure, wherein an electric field direction of the liquid crystal between at least one pair of adjacent pixels is inclined against an electrode plane; and

an opposite electrode parallel with said pixel electrodes, wherein the liquid crystal is held between said pixel electrodes and said opposite electrode, the inclined structure has a non-conductive portion provided in a part of the opposite electrode that is opposite to a gap between at least one pair of adjacent pixel electrodes; and

a side of the pixel electrode is opposite to the opposite electrode, and the other side of the pixel electrode is opposite to the non-conductive portion, A liquid crystal element according to claim 52, wherein, comprises: in view of a Z direction at a right angle with X, Y directions when a pixel of i-th position in X direction and j-th position in Y direction from an edge point or a standard point is defined as p (i, j), said non-conductive portion, comprises:

a first nonconductive portion, with a rectangular shape having a longer side in Y direction and a larger width in X direction than a distance between a pixel p ($4m, 4n+1$) and a pixel p ($4m+1, 4n+1$), which includes an opposite electrode corresponding to each of at least a part of a gap between a pixel p ($4m, 4n$) [m, n : an integer] and a pixel p ($4m+1, 4n$) as well as at least a part of a gap between a pixel p ($4m, 4n+1$) and a pixel p ($4m+1, 4n+1$);

a second nonconductive portion, with a rectangular shape having a longer side in X direction and a larger width in Y direction than a distance between a pixel p ($4m+1, 4n+2$) and a pixel p ($4m+1, 4n+3$), which includes an opposite electrode corresponding to each of at least a part of a gap between a pixel p ($4m, 4n+2$) and a pixel p ($4m, 4n+3$) as well as at least a part of a gap between a pixel p ($4m+1, 4n+2$) and a pixel p ($4m+1, 4n+3$);

a third nonconductive portion, with a rectangular shape having a longer side in X direction and a larger width in Y direction than a distance between a pixel p ($4m+3, 4n+3$) and a pixel p ($4m+3, 4n+4$), which includes an opposite electrode corresponding to each of at least a part of a gap between a pixel p ($4m+2, 4n+3$) and a pixel p ($4m+2, 4n+4$) as well as at least a part of a gap between a pixel p ($4m+3, 4n+3$) and a pixel p ($4m+3, 4n+4$); and

a fourth nonconductive portion, with a rectangular shape having a longer side in Y direction and a larger width in X direction than a distance between a pixel p ($4m+2, 4n+2$) and a pixel p ($4m+3, 4n+2$), which includes an opposite electrode corresponding to each of at least a part of a gap between a pixel p ($4m+2, 4n+1$) and a pixel p ($4m+3, 4n+1$) as well as at least a part of a gap between a pixel p ($4m+2, 4n+2$) and a pixel p ($4m+3, 4n+2$).

55. (Currently Amended) A liquid crystal element, comprising:

a multitude of pixel electrodes;

a liquid crystal to which an electric field is applied by said pixel electrodes, said liquid crystal element has a structure such that a four-sided minute pixel electrode is arrayed in a lattice in X, Y directions crossing each other at a right angle on a display plane and said non-conductive portion;

an inclined structure, wherein an electric field direction of the liquid crystal between at least one pair of adjacent pixels is inclined against an electrode plane; and

an opposite electrode parallel with said pixel electrodes, wherein the liquid crystal is held between said pixel electrodes and said opposite electrode, the inclined structure has a non-conductive portion provided in a part of the opposite electrode that is opposite to a gap between at least one pair of adjacent pixel electrodes; and

a side of the pixel electrode is opposite to the opposite electrode, and the other side of the pixel electrode is opposite to the non-conductive portion, ~~A liquid crystal element according to claim 52, wherein, comprises:~~ in view of a Z direction at a right angle with X, Y directions when a pixel of i-th position in X direction and j-th position in Y direction from an edge point or a standard point is defined as p (i, j), said non-conductive portion, comprises:

a first nonconductive portion, with a rectangular shape having a longer side in Y direction and a larger width in X direction than a distance between a pixel p (4m, 4n+1) and a pixel p

$(4m+1, 4n+1)$, which includes an opposite electrode corresponding to each of at least a part of a gap between a pixel $p(4m, 4n)$ [m, n : an integer] and a pixel $p(4m+1, 4n)$ as well as at least a part of a gap between a pixel $p(4m, 4n+1)$ and a pixel $p(4m+1, 4n+1)$;

a second nonconductive portion, with a rectangular shape having a longer side in X direction and a larger width in Y direction than a distance between a pixel $p(4m+1, 4n+2)$ and a pixel $p(4m+1, 4n+3)$, which includes an opposite electrode corresponding to each of at least a part of a gap between a pixel $p(4m, 4n+2)$ and a pixel $p(4m, 4n+3)$ as well as at least a part of a gap between a pixel $p(4m+1, 4n+2)$ and a pixel $p(4m+1, 4n+3)$;

a third nonconductive portion, with a rectangular shape having a longer side in X direction and a larger width in Y direction than a distance between a pixel $p(4m+3, 4n+1)$ and a pixel $p(4m+3, 4n+2)$, which includes an opposite electrode corresponding to each of at least a part of a gap between a pixel $p(4m+2, 4n+1)$ and a pixel $p(4m+2, 4n+2)$ as well as at least a part of a gap between a pixel $p(4m+3, 4n+1)$ and a pixel $p(4m+3, 4n+2)$; and

a fourth nonconductive portion, with a rectangular shape having a longer side in Y direction and a larger width in X direction than a distance between a pixel $p(4m+2, 4n)$ and a pixel $p(4m+3, 4n)$, which includes an opposite electrode corresponding to each of at least a part of a gap between a pixel $p(4m+2, 4n-1)$ and a pixel $p(4m+3, 4n-1)$ as well as at least a part of a gap between a pixel $p(4m+2, 4n)$ and a pixel $p(4m+3, 4n)$.

56. (Currently Amended) The A liquid crystal element according to Claim 53,
wherein: said four-sided minute pixel electrode is rectangular in its plane shape has a rectangular

shape; and

an area in which each of the first to fourth ~~nonconductive~~ non-conductive portions with a rectangular shape, which ~~include~~ includes said opposite electrode, overlaps with said rectangular pixel electrode and has a narrower width in a direction of a longer side of the pixel electrode than a width in a direction of a shorter side of the pixel electrode, in view of the Z direction.

57. (Currently Amended) The A liquid crystal element according to Claim 53, wherein said four-sided minute pixel electrode is square ~~in its plane shape~~.

58. (Currently Amended) The A liquid crystal element according to Claim 53, wherein said four-sided minute pixel electrode is a pixel electrode for a color display in which a pixel for three primary colors is arrayed in a mosaic.

59. (Currently Amended) The A liquid crystal element according to Claim 56, wherein said four-sided minute pixel electrode is ~~composed~~ comprised of three four-sided minor pixel electrodes for three primary colors, which are arrayed vertically to a direction of a longer side of said first to fourth ~~nonconductive~~ non-conductive portions with a rectangular shape.

60. (Currently Amended) The A liquid crystal element according to Claim 53, wherein said ~~nonconductive~~ non-conductive portion with a rectangular shape ~~is a nonconductive portion with~~ has a lap of 2 μ m in which a width of its shorter side is larger by 4 μ m or more than a

gap between two opposite pixels through its longer side.

61. (Currently Amended) The A liquid crystal element according to Claim 53, comprising a group of minor ~~noneconductive~~ non-conductive portions which include an opposite electrode corresponding to at least a part of a gap between two opposite pixel electrodes or minor pixel electrodes through two longer sides of the ~~noneconductive~~ non-conductive portion, instead of at least one of said first to fourth ~~noneconductive~~ non-conductive portions.

62. (Currently Amended) A liquid crystal element, comprising:

a multitude of pixel electrodes;

a liquid crystal to which an electric field is applied by said pixel electrodes, said liquid crystal element has a structure such that a four-sided minute pixel electrode is arrayed in a delta system for a color display on a display plane;

an inclined structure, wherein an electric field direction of the liquid crystal between at least one pair of adjacent pixels is inclined against an electrode plane; and

an opposite electrode parallel with said pixel electrodes, wherein the liquid crystal is held between said pixel electrodes and said opposite electrode, the inclined structure has a non-conductive portion provided in a part of the opposite electrode that is opposite to a gap between at least one pair of adjacent pixel electrodes; and

a side of the pixel electrode is opposite to the opposite electrode, and the other side of the pixel electrode is opposite to the non-conductive portion. ~~A liquid crystal element according to claim 52, wherein, and said non-conductive portion comprises:~~ when a pixel row of i -th position from a bottom side upward is defined as $q(i)$, and a group of three adjacent pixels of red, green and blue, which is composed of one of red, green and blue pixels in an odd pixel row $q(2m+1)$ [m : an integer] and one of red, green and blue pixels in an even pixel row $q(2m+2)$, is defined as a group of pixels for a color display and a group of pixels for a color display of j -th position from a left side on $q(2m+1)$ and $q(2m+2)$ is defined as $Gq(j)$, said non-conductive portion, comprises:

a first T-shaped nonconductive portion which includes an opposite electrode corresponding to each of at least a part of a gap between two adjacent pixels on $q(2m+1)$ in a group of pixels for a color display composed of two pixels on $q(2m+1)$ and a pixel on $q(2m+2)$ as well as at least a part of a pixel on $q(2m+2)$ facing said two pixels on $q(2m+1)$;

a first reverse T-shaped nonconductive portion adjacent to said first T-shaped nonconductive portion, which includes an opposite electrode corresponding to each of at least a part of a gap between two adjacent pixels on $q(2m+2)$ in a group of pixels for a color display composed of a pixel on $q(2m+1)$ and two pixels on $q(2m+2)$ as well as at least a part of a pixel on $q(2m+1)$ facing said two pixels on $q(2m+2)$;

a second T-shaped nonconductive portion shifted leftward by a pixel from said first T-shaped nonconductive portion, which includes an opposite electrode corresponding to each of at least a part of a gap between two adjacent pixels on $q(2m+3)$ in a group of pixels for a color display composed of two pixels on $q(2m+3)$ and a pixel on $q(2m+4)$ as well as at least a part of a

pixel on $q(2m+4)$ facing said two pixels on $q(2m+3)$;

a second reverse T-shaped nonconductive portion adjacent to said second T-shaped nonconductive portion, which includes an opposite electrode corresponding to each of at least a part of a gap between two adjacent pixels on $q(2m+4)$ in a group of pixels for a color display composed of a pixel on $q(2m+3)$ and two pixels on $q(2m+4)$ as well as at least a part of a pixel on $q(2m+3)$ facing said two pixels on $q(2m+4)$;

a third T-shaped nonconductive portion shifted leftward by a pixel from said second T-shaped nonconductive portion, which includes an opposite electrode corresponding to each of at least a part of a gap between two adjacent pixels on $q(2m+5)$ in a group of pixels for a color display composed of two pixels on $q(2m+5)$ and a pixel on $q(2m+6)$ as well as at least a part of a pixel on $q(2m+6)$ facing said two pixels on $q(2m+5)$; and

a third reverse T-shaped nonconductive portion adjacent to said third T-shaped nonconductive portion, which includes an opposite electrode corresponding to each of at least a part of a gap between two adjacent pixels on $q(2m+6)$ in a group of pixels for a color display composed of a pixel on $q(2m+5)$ and two pixels on $q(2m+6)$ as well as at least a part of a pixel on $q(2m+5)$ facing said two pixels on $q(2m+6)$.

63. (Currently Amended) The A liquid crystal element according to Claim 62, comprising:

a longitudinal minor ~~nonconductive~~ non-conductive portion forming a longitudinal area of the ~~nonconductive~~ non-conductive portion between adjacent pixels in the same pixel row;

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a lateral minor ~~nonconductive~~ non-conductive portion forming a lateral area between said adjacent pixels and a pixel in the same group of pixels for a color display as said adjacent pixels, which is opposite to both of these pixels; and

a cutting portion of the ~~nonconductive~~ non-conductive portion dividing said longitudinal minor ~~nonconductive~~ non-conductive portion and said lateral minor ~~nonconductive~~ non-conductive portion, instead of at least one of said first to third T-shaped and reverse T-shaped nonconductive portions.

64. (Currently Amended) The A liquid crystal element according to Claim 62, wherein said longitudinal minor ~~nonconductive~~ non-conductive portion and said lateral minor ~~nonconductive~~ non-conductive portion ~~instead of at least one of said first to third T-shaped and reverse T-shaped nonconductive portions~~ is a ~~nonconductive~~ non-conductive portion with a lap of 2 μ m having a common area with a width of at least 2 μ m, in view of a Z direction at a right angle with a display plane on which a pixel is arrayed.

65. (Canceled)